

Remarks of  
**U.S. Representative Edward J. Markey (D-MA)**  
Ranking Democrat, House Subcommittee on  
Telecommunications, Trade, and Consumer Protection  
Hearing on Electronic Commerce  
April 30, 1998

Good Morning. I want to start off by commending Chairman Tom Bliley (R-VA) for holding this hearing today on electronic commerce. These issues are vitally important for the future of the American economy.

A few of decades ago, Gordon Moore, cofounder of Intel, postulated that the number of transistors that you could pack onto a chip doubles every 18 months. This principle became known as Moore's Law. By doubling the power and speed of the chips every 18 months, in layman's terms what the principle of Moore's Law generally means is that the computer you buy today will be roughly the same price (if not cheaper) than the one you bought three years ago, except that it is four times as fast and powerful.

For years, in the world of stand-alone computers this was an interesting phenomenon. At Intel and Digital and elsewhere, the "Chip Chieftains" created ever more powerful chips while the entrepreneurs and innovators in the computer and software industry - Steve Jobs, Bill Gates, Mitch Kapor, and others - helped to make smaller, more powerful PCs and more versatile and useful applications for the machines.

But when the stand-alone computer met that wondrous wire, and through the Internet, connected to other computers, something transcendent occurred. The digital revolution that has swept over our entire telecommunications landscape, from cable and telephone wires to wireless services and satellite-based communications, has created additional bandwidth that, in digital form, is right now connecting a console community together through the Internet.

This trend toward greater bandwidth was propelled in part by action taken by this Committee to break open monopoly markets in telephone and cable service, and to free up government-owned airwave frequencies for the private sector to utilize in the emerging wireless industry. The result is an exponential explosion in the growth of digital communications. The Department of Commerce recently announced that Internet traffic doubles every 100 days.

Established industries and entrepreneurs alike have taken advantage of these changes in law. We have the thousands of miles of fiber optic strands in the networks of AT&T, Sprint, Worldcomm, and Quest, new entrants in the local phone and data market, upgrades to cable facilities by TCI, Cox and other cable companies, along with digital wireless networks from many other companies across the country that are fueling the bandwidth boom. In short, the "Chip Chieftains" from the computer industry have met the "Barons of Bandwidth" in the communications industry. When you couple the doubling effect of Moore's Law with the doubling of Internet traffic as a result of the bandwidth bonanza the results will be profound, not only for electronic commerce, but for society as a whole. It will usher in radical changes in our society.

Yet as the "Chip Chieftains" and the "Barons of Bandwidth" continue their exponential growth and help fuel a multimedia metamorphosis of global proportions, there will be other forces at work as well. Because Moore's Law and it's communications corollary, the bandwidth bonanza, tell only part of the story.

Allow me to postulate another corollary. Every time there's a doubling of chip power, a doubling of

bandwidth, and a doubling of Internet traffic, certain entities in the digital domain will redouble efforts to counteract these democratizing and empowering forces in order to create new bottlenecks and sources of control. For example,

- they will redouble efforts in the national security community to bottle up encryption power;
- they will redouble efforts in the tax community to assert taxing nexus everywhere and anywhere they can; and,
- they will redouble efforts in corporate offices to control the settop box, the operating system; or other leverage points for asserting dominion on the network.

It is for these reasons that this Committee has a responsibility to articulate a coherent policy that recognizes the duality of the doubling effect and the redoubling effort. We need to work in this Committee to ensure that the benefits of the digital revolution are maximized for American consumers and citizens. We have to make sure that individual American citizens can utilize the best encryption available to protect their privacy and high tech products while putting common sense controls on the most sophisticated technology for export to problem areas of the world. We do not have to ensure that the Internet is free from all taxation completely, but rather that the Internet is not subjected to onerous or duplicative taxes from a kazillion different sources. We have to make sure that schoolchildren in the inner cities and in rural America get technology in the classrooms so that they acquire the skill set that they are going to need to compete for jobs in the post-GATT, post-NAFTA, digital economy.

And it is also why we should applaud the Department of Justice for taking action against Microsoft. That case is vitally important in order to protect free competition and an open marketplace. This is a fight against "corporate cybercentrism" - an attempt to thwart the designs of a single company to set itself up in the center of cyberspace and to create new bottlenecks to competition. The Windows monopoly must not be permitted to stultify innovation, slow growth in electronic commerce, and undermine consumer choice as Microsoft attempts time and time again to extend that monopoly into other areas. I think the Department of Justice is absolutely right to take action.

Again, I want to thank Chairman Bliley, Mr. Dingell, Chairman Tauzin for the hearing this morning and I look forward to the testimony of the witnesses.